

REMARKS

Claims 1, 2, 6, 8, 12, 14, and 18 are currently amended. Applicant respectfully submits that the amendments contained herein are fully supported by the specification and drawings as originally filed and do not contain new matter.

Claim Rejections Under 35 U.S.C. § 112

Claims 6, 12, and 18-20 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 6, 12, and 18 have been amended to overcome the rejection under 35 U.S.C. §112, second paragraph. Support for the amendments is found in paragraph [0024] of the specification as filed. Claims 19-20 depend from claim 18 and are thus allowable under 35 U.S.C. §112, second paragraph, for at least the same reasons as claim 18.

Claim Rejections Under 35 U.S.C. § 102

Claims 1-5, 8-11, 14-15, and 17 were rejected under 35 U.S.C. § 102(b) as being anticipated by Aji et al. (U.S. Patent No. 5,831,867). Applicant respectfully traverses.

Claims 1, 2, 8, and 14 each recite: “identifying with a line width marker any lines having a line width greater than minimum line width; associating a line width parameter with each line width marker, the line width parameter corresponding to a line width for the marked line; and comparing the line width parameter for each line width marker with an actual layout line width.” It is clear from reading each of claims 1, 2, 8, and 14 that associating a line width parameter with each line width marker occurs after identifying with a line width marker any lines having a line width greater than minimum line width in that associating a line width parameter with each line width marker refers to each line width marker. Moreover, comparing the line width parameter for each line width marker with an actual layout line width occurs after associating a line width parameter with each line width marker in that comparing the line width parameter for each line width marker with an actual layout line width refers to each line width parameter for each line width marker.

Aji et al. (column 7, line 55, to column 8, line 12) first retrieves wire data for a first wire at block 514 of Figure 5B. A minimum wire width is then determined block 516. After determining the minimum wire width at block 516, decision block 518 determines whether the wire width of the wire according to the integrated circuit design is greater than the minimum wire width. If the wire width is greater than the minimum wire width, the wire width is

sufficient to satisfy process rules concerning electromigration given the lumped capacitance (LC) and the determined drive strength.

The Examiner has taken the wire width being greater than the minimum wire width at decision block 518 (or the “YES” output of decision block 518) as corresponding to the recitation of each of claims 1, 2, 8, and 14 that identifies with a line width marker any lines having a line width greater than minimum line width. The Examiner has taken the determination, at decision block 518, of whether the wire width of the wire according to the integrated circuit design is greater than the minimum wire width as corresponding to the recitation of each of claims 1, 2, 8, and 14 of comparing the line width parameter for each line width marker with an actual layout line width. However, the determination at decision block 518 occurs before the “YES” output of decision block 518, which the Examiner has taken as corresponding to the recitation of each of claims 1, 2, 8, and 14 that identifies with a line width marker any lines having a line width greater than minimum line width. In each of claims 1, 2, 8, and 14, comparing the line width parameter for each line width marker with an actual layout line width occurs after identifying with a line width marker any lines having a line width greater than minimum line width in that comparing the line width parameter for each line width marker with an actual layout line width requires the identification with the line width marker. Moreover, the “YES” output of decision block 518 depends upon the determination at decision block 518, but, as recited in each of claims 1, 2, 8, and 14, identifying with a line width marker any lines having a line width greater than minimum line width does not depend upon comparing the line width parameter for each line width marker with an actual layout line width. Therefore, Aji et al. does not include each and every recitation of each of claims 1, 2, 8, and 14, so each of claims 1, 2, 8, and 14 is allowable.

Claims 4-5 depend from claim 1 and are thus allowable for at least the same reasons as claim 1. Claims 9-11 depend from claim 8 and are thus allowable for at least the same reasons as claim 8. Claims 15 and 17 depend from claim 14 and are thus allowable for at least the same reasons as claim 14.

Claim Rejections Under 35 U.S.C. § 103

Claims 6, 12, and 18-19 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Aji et al. in view of one or more of Tan et al. (U.S. Pat. No. 6,117,179) and/or Morrise et al. (U.S. Patent No. 6,557,149).

Claims 1 and 8 are each patentably distinct from Aji et al. Moreover, Aji et al. in combination with Tan et al., Aji et al. in combination with Morrise et al., or Aji et al. in combination with Tan et al. and Morrise et al., fails to overcome the deficiencies of Aji et al. with respect to each of claims 1 and 8. Therefore, claims 1 and 8 are allowable over Aji et al. in view of one or more of Tan et al. and/or Morrise et al. Claims 6 and 12 respectively depend from claims 1 and 8 and are thus respectively allowable for at least the same reasons as claims 1 and 8.

Claim 18 recites “identifying with a line width marker any lines having a line width greater than minimum line width; associating a line width parameter with each line width marker, the line width parameter corresponding to a line width for the marked line; and comparing the line width parameter for each line width marker with an actual layout line width.” As indicated above in conjunction with each of claims 1, 2, 8, and 14, this is different than Aji et al. Therefore, Aji et al. does not include each and every recitation of claim 18, so claim 18 is patentably distinct from Aji et al. Moreover, Aji et al. in combination with Tan et al., Aji et al. in combination with Morrise et al., or Aji et al. in combination with Tan et al. and Morrise et al., fails to overcome the deficiencies of Aji et al. with respect to claim 18. Therefore, claim 18 is allowable over Aji et al. in view of one or more of Tan et al. and/or Morrise et al. Claim 19 depends from claim 18 and is thus allowable for at least the same reasons as claim 18.

Claims 7, 13, and 16 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Aji et al. in view of one or more of Chonan (U.S. Pub. No. 2004/0212402), Mori et al.(U.S. Pub. No. 2004/0013023), and/or Takabayashi et al. (U.S. Pub. No. 2003/0200509).

Claims 1, 8, and 14 are each patentably distinct from Aji et al. Moreover, Aji et al. in combination with Chonan, Aji et al. in combination with Mori et al., Aji et al. in combination with Takabayashi et al., Aji et al. in combination with Chonan and Mori et al., Aji et al. in combination with Chonan and Takabayashi et al., Aji et al. in combination with Mori et al. and Takabayashi et al., or Aji et al. in combination with Chonan, Mori et al., and Takabayashi et al. fails to overcome the deficiencies of Aji et al. with respect to each of claims 1, 8, and 14. Therefore, each of claims 1, 8, and 14 is allowable over Aji et al. in view of one or more of Chonan, Mori et al., and/or Takabayashi et al. Claims 7, 13, and 16 respectively depend from claims 1, 8, and 14 and are thus respectively allowable for at least the same reasons as claims 1, 8, and 14.

Claim 20 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Aji et al. in view of one or more of Tan and/or Morrise et al. in further view of one or more of Chonan, Mori et al., and/or Takabayashi et al.

Claim 18 is patentably distinct from Aji et al. in view of one or more of Tan et al. and/or Morrise et al. Moreover, Aji et al. in view of one or more of Tan et al. and/or Morrise et al. in combination with Chonan, Aji et al. in view of one or more of Tan et al. and/or Morrise et al. in combination with Mori et al., Aji et al. in view of one or more of Tan et al. and/or Morrise et al. in combination with Takabayashi et al., Aji et al. in view of one or more of Tan et al. and/or Morrise et al. in combination with Chonan and Mori et al., Aji et al. in view of one or more of Tan et al. and/or Morrise et al. in combination with Chonan and Takabayashi et al., Aji et al. in view of one or more of Tan et al. and/or Morrise et al. in combination with Mori et al. and Takabayashi et al., or Aji et al. in view of one or more of Tan et al. and/or Morrise et al. in combination with Chonan, Mori et al., and Takabayashi et al. fails to overcome the deficiencies of Aji et al. in view of one or more of Tan et al. and/or Morrise et al. with respect to claim 18. Therefore, claim 18 is allowable over Aji et al. in view of one or more of Tan and/or Morrise et al. in further view of one or more of Chonan, Mori et al., and/or Takabayashi et al. Claim 20 depends from claim 18 and is thus allowable for at least the same reasons as claim 18.

CONCLUSION

In view of the above remarks, Applicant believes that all pending claims are in condition for allowance and respectfully requests a Notice of Allowance be issued in this case. Please charge any further fees deemed necessary or credit any overpayment to Deposit Account No. 501373.

If the Examiner has any questions or concerns regarding this application, please contact the undersigned at (612) 312-2208.

Respectfully submitted,

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